

## CLAIMS:

1. An x-ray examination apparatus comprising an x-ray source and an x-ray detector,

- the x-ray detector including

- a photoconductor to derive electric charges from incident x-radiation and

5 - read-out elements which derive electrical pixel-signals from the electric charges from the photoconductor and

- an output circuit to output the electrical pixel-signal from the read-out elements, wherein

- a central group of the read-out elements is located in a central region of the x-ray detector and

- a peripheral group of the read-out elements is located in a peripheral region which surrounds the central region,

- the x-ray examination apparatus being provided with

- a selection system to select the central group of read-out elements so as to supply pixel-signals from the central group of read-elements to the output circuit.

10 2. An x-ray examination apparatus as claimed in Claim 1, wherein the selection system includes an x-ray shielding member which shields the peripheral region of the photoconductor from incident x-radiation.

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3. An x-ray examination apparatus as claimed in Claim 1 and comprising a collimator between the x-ray detector and the x-ray detector, wherein the collimator comprises an x-ray absorbing member which is spatially registered with the peripheral region of the photoconductor.

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4. An x-ray examination apparatus as claimed in Claim 1, wherein and wherein the selection system includes an encompassing electrode which surrounds the central region and which is electrically connected to the read-out elements of the peripheral group.

5. An x-ray examination apparatus as claimed in Claim 1 wherein collecting electrodes of read-out elements of the peripheral group are smaller sized than collecting electrodes of the read-out elements the central group.

5 6. An x-ray examination apparatus as claimed in Claim 1, the selection system electrically isolates the peripheral group of read-out elements from the output circuit.

7. An x-ray examination apparatus as claimed in Claim 1 wherein the photoconductor is a continuous semiconductor layer or the photoconductor includes a 10 plurality of crystalline semiconductor elements.

8. An x-ray examination apparatus as claimed in Claim 7 wherein the semiconductor layer or the semiconductor elements contain a photoconducting material from the group of Cadmium Zinc Telluride, Mercury Iodide or Lead Oxide.